

Listing of The Claims:

1. (Currently amended) ~~A method for indexing a database comprising:~~

~~associating a plurality of keys with a plurality of respective predetermined records in the database, wherein each key comprises a data string of one or more digits;~~

~~associating each digit in the data string with a respective level of a plurality of levels of said database as a function of the position of the digit in the data string;~~

~~obtaining an instruction at a first said level, wherein the instruction is associated with one or more records in the database; and~~

~~checking for another instruction at a second said level, and if the another instruction does not specify a record, returning to the first level and indexing the data string in accordance with the one or more records associated with the instruction at the first level.~~

A method for associating a plurality of keys with respective predetermined records, each of said keys including a data string of one or more digits, said digits having a range of values, the method comprising:

(a) providing an index having a plurality of levels, wherein each said level corresponds to a respective digit of said keys, and wherein each said level is a data field including a plurality of elements having a range of values corresponding to the range of values of said digits of said keys;

(b) for each element of each said level of said index having a value matching the value of the key digit corresponding to that

level, associating an indexing instruction therewith selected from the group of indexing instructions consisting of:

i) moving on to check a next level without specifying a record; ii) specifying one or more records and also moving on to check a next level; iii) specifying one or more records and not moving on to check a next level; and

(c) associating the following indexing instruction with all elements of the index other than the matching elements of step (b): iv) not specifying a record and not moving on to check a next level.

2. (Currently amended) The ~~indexing~~ method of claim 1 wherein each of said keys represents a group of telephone numbers.

3. (Currently amended) The ~~indexing~~ method of claim 2 wherein each of said keys is a specified portion of each telephone number of said group.

4. (Currently amended) The ~~indexing~~ method of claim 3 wherein said specified portion is a starting portion of said each telephone number of said group.

5. (Currently amended) The ~~indexing~~ method of claim 4 wherein said starting portion comprises one or more digits.

6. (Currently amended) The ~~indexing~~ method of claim 2 wherein said records are call processing instructions.

7. (Currently amended) The ~~indexing~~ method of claim 6 wherein said call processing instructions are routing instructions.

8. (Currently amended) The ~~indexing~~ method of claim 1 wherein said digits are alphanumeric characters.

9. (Currently amended) The ~~indexing~~ method of claim 8 wherein each of said keys represents a group of data entries of said database.

10. (Currently amended) The ~~indexing~~ method of claim 9 wherein each of said records is a destination assigned to said group represented by said each key.

11. (Currently amended) The ~~indexing~~ method of claim 1 wherein a sequence of said plural levels corresponds to a sequence of said digits in said data strings.

12. (Currently amended) The ~~indexing~~ method of claim 11 wherein said sequence of the digits is a natural order of the digits in the data string.

13. (Currently amended) ~~The indexing method of claim 12 wherein a first level represents a first digit, a second level represents a second digit, a third level represents a third digit, and so forth.~~

The method of claim 1 further comprising:

providing a data string query;
identifying a key of the plurality of keys having a best
pattern match with the data string query; and
returning a record for said data string query associated with
said best pattern matching key.

14. (Currently amended) The ~~indexing~~ method of claim 11 wherein said sequence of the digits is determined by a specified priority of each digit in the data string.

15. (Currently amended) ~~The indexing method of claim 14 wherein a first level represents a digit of a highest priority, a second level represents a digit of a second highest priority, a third level represents a digit of a third highest priority, and so forth.~~

The method of claim 1 further comprising:
providing a telephone number for making a telephone call;
identifying a key of the plurality of keys having a best
pattern match with the telephone number;
returning a record specified for the key having the best
pattern match, the record including a routing instruction for the
telephone call; and
routing the telephone call to a destination in accordance
with the routing instruction.

16-29. Canceled.

30 (New) A method for associating a plurality of keys with respective predetermined telephone call routing instructions, each of said keys including a data string of one or more digits, said digits having a range of values, the method comprising:

(a) providing an index having a plurality of levels, wherein each said level corresponds a respective digit of said keys, and wherein each said level is a data field including a plurality of elements having a range of values corresponding to the range of values of said digits of said keys;

(b) for each element of each said level of the index having a value matching the value of the key digit corresponding to that level, associating an indexing instruction therewith selected from the group of indexing instructions consisting of:

i) moving on to check a next level of the index without specifying a routing instruction; ii) specifying one or more routing instructions and also moving on to check a next level of the index; iii) specifying one or more routing instructions and not moving on to check a next level of the index; and

(c) associating the following indexing instruction with all elements of the index other than the matching elements of step (b): iv) not specifying a record and not moving on to check a next level;

identifying a key of the plurality of keys having a best pattern match with a given telephone number;

returning a routing instruction specified for the key having the best pattern match; and

routing the telephone call to a destination in accordance with the returned routing instruction.

31. (New) An indexing system for associating a plurality of keys with respective predetermined records, each of said keys including a data string of one or more digits, said digits having a range of values, the system comprising:

(a) an index having a plurality of levels, wherein each said level corresponds a respective digit of said keys, and wherein each said level is a data field including a plurality of elements having a range of values corresponding to the range of values of said digits of said keys, the levels of the index being linked by indexing instructions;

(b) an active indexing instruction, of said indexing instructions, associated with each element of each said level of said index having a value matching the value of the key digit corresponding to that level, the indexing instruction being selected from the group consisting of:

i) moving on to check a next level of the index without specifying a record; ii) specifying one or more records and also moving on to check a next level of the index; iii) specifying one or more records and not moving on to check a next level of the index; and

(c) a null indexing instruction, of said indexing instructions, associated with all elements of the index other than the matching elements of (b), the final indexing instruction specifying: not specifying a record and not moving on to check a next level.